

541, 731

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
29 July 2004 (29.07.2004)

PCT

(10) International Publication Number  
**WO 2004/063254 A1**

- (51) International Patent Classification<sup>7</sup>: **C08J 7/04**,  
A01N 25/10, 59/16, 59/26, C09D 5/02
- (21) International Application Number:  
PCT/GB2004/000016
- (22) International Filing Date: 7 January 2004 (07.01.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
0301034.5 16 January 2003 (16.01.2003) GB
- (71) Applicant (for all designated States except US): **DUPONT  
TELJIN FILMS U.S. LIMITED PARTNERSHIP**  
[US/US]; Building 27, Barley Mill Plaza, Routes 141 &  
48, Wilmington, DE 19805 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **DENG, Fenghua**  
[US/US]; 2403 Islandview Court, Richmond, VA 23233  
(US). **FRANZYSHEN, Stephen, K.** [US/US]; 345 Rex-  
moor Terrace, Richmond, VA 23236 (US). **NUGARA,  
Peter, N.** [US/US]; 11760 Wexwood Drive, Richmond,  
VA 23236 (US). **MACDONALD, William, A.** [GB/GB];  
DuPont Teijin Films UK Ltd, PO Box 2002, Wilton,  
Middlesbrough TS90 8JF (GB).
- (74) Agents: **COCKERTON, Bruce, Roger et al.**; Carpmaels  
& Ransford, 43 Bloomsbury Square, London WC1A 2RA  
(GB).
- (81) Designated States (unless otherwise indicated, for every  
kind of national protection available): AE, AG, AL, AM,  
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,  
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,  
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,  
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,  
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,  
ZW.
- (84) Designated States (unless otherwise indicated, for every  
kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),  
Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), Euro-  
pean (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,  
GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,  
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
ML, MR, NE, SN, TD, TG).
- Published:**  
— with international search report  
— before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments
- For two-letter codes and other abbreviations, refer to the "Guid-  
ance Notes on Codes and Abbreviations" appearing at the begin-  
ning of each regular issue of the PCT Gazette.*

(54) Title: ANTI-MICROBIAL COATED POLYMERIC FILM

(57) Abstract: An anti-microbial polymeric film comprising a polymeric substrate layer having a first and second surface and on a surface thereof a coating having a thickness of from about 0.01 to about 14.0 gm and comprising an anti-microbial compound in an amount of from about 0.1 to about 50% by weight of the coating layer, characterised in that (i) said coating provides a heat-seal strength of from 100 g/in to 2500 g/in when heat-sealed to itself and/or (ii) said coating provides a barrier to water vapour and/or oxygen, such that the water vapour transmission rate is in the range of 0.01 to 10g/100 inches<sup>2</sup>/day and the oxygen transmission rate is in the range of 0.01 to 10 cm<sup>3</sup>/100 inches<sup>2</sup>/day/atm.

WO 2004/063254 A1